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# AEROSPACE POWER'S ROLE IN LARGE SCALE WARFARE

by

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A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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**15. Abstract:** During large scale warfare, aerospace forces can do the bulk of work needed to determine the outcome of the conflict, thus enabling other forces to achieve their goals with minimum loss of life. Consequently, it's time to rethink the United States traditional ground force-on-force phased approach to large scale warfare and adopt a new approach called the "decisive halt strategy."

Wars have traditionally been fought in three phases: halt the invading force, build up combat power and weaken the enemy, then conduct the decisive counteroffensive. In the new view, the halt phase may be planned as the conflict's decisive phase instead of as a precursor to a build-up of ground forces. The goal of the decisive halt strategy is to force the enemy beyond his culminating point through the early and sustained application of air and space power. Strategic or operational objectives may have been achieved in the halt, follow-on diplomacy may end the conflict, or a limited air and ground counteroffensive buildup may be required.

The United States Air Force's emerging capabilities and core competencies of air and space superiority, precision engagement, information superiority, global attack, and rapid global mobility are at the heart of the aerospace power's strategic contribution to America's military capabilities. These competencies, in conjunction with Joint Vision 2010 concepts, joint force air component commander interaction, and a sound air campaign plan, will provide joint force commanders with the capability to decisively halt an enemy without employing extensive ground forces.

Certainly, aerospace forces have limitations. First, they cannot win conflicts single-handedly. Next, during military operations other than war, they're relegated to a supporting role. Finally, there can be complications with land based air forces basing rights. Despite these drawbacks, aerospace power has the potential to be a dominant factor in large scale warfare.

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# Abstract of

AEROSPACE POWER'S ROLE IN LARGE SCALE WARFARE

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Certainly, aerospace forces have limitations. First, they cannot win conflicts single-handedly. Next, during military operations other than war, they're relegated to a supporting role. Finally, there can be complications with land based air forces basing rights. Despite these drawbacks, aerospace power has the potential to be a dominant factor in large scale warfare.

# Introduction

Since the Gulf War in 1991, renewed debate over American aerospace power has emerged. Many land warriors insist, including General Robert H. Scales, author of USA, Certain Victory: The US Army in the Gulf War, that the proper role of aerospace power is to support surface operations and that only "boots on the ground" can assure military victory. During most military operations other than war (MOOTW), I envision this to be the case. On the other hand, **during large scale warfare, aerospace forces can do the bulk of work needed to determine the outcome of the conflict,** thus enabling other forces to achieve their goals with minimum loss of life. Under these circumstances, combat theater commander in chiefs (CINCs) should view air power as the "supported" rather than the supporting combat element.[1]

It's time to rethink the United States (US) traditional ground force-on-force phased approach to large scale warfare and adopt a new "quick response approach" that emphasizes the early and sustained application of air and space power.[2] The Quadrennial Defense Review (QDR) calls for a **decisive halt strategy** capable of "quickly deploying long distances to augment forward stationed and deployed forces, assisting a threatened nation, rapidly stopping an enemy invasion, and defeating an aggressor."[3] The improved technologies and operational concepts of air and space forces can meet this QDR requirement and provide joint force commanders (JFCs) with the capability to decisively halt an enemy without employing extensive ground forces.

Several new developments dictate a transition from attrition force-on-force ground warfare to a strategy emphasizing aerospace capabilities. First, air and space forces have increased their lethality. The extended ranges, added stealth features, refinement of precision-guided munitions (PGMs), and enhanced battle management capabilities of air power have vastly improved America's combat effectiveness. Next, aerospace forces can respond rapidly to crises. Even with a diminished threat of

superpower confrontation, the post-Cold War world has a number of crises that compels the National Command Authority (NCA) to rely on the military to resolve global problems. With fewer forces than pre-Gulf War strengths, many situations will dictate the flexible and rapid response of air power. Lastly, aerospace power is cheaper in terms of bloodshed. Recent American preference for decisive force with few casualties is well known.[4]

With that said, the goal of this paper is twofold. First and foremost, support the thesis that aerospace power can be the dominant factor in large scale warfare. Next, help theater CINCs and their staffs understand: the capabilities of aerospace forces to halt an enemy in large scale combat; how aerospace power should be implemented at the operational level; and the limitations of US Air Force (USAF) air and space power. Therefore, **the first section** will address the US views towards warfare by: reviewing the traditional phased approach to warfare, introducing the decisive halt approach strategy, and illustrating air power's role in decisively halting Iraq during the 1991Gulf War. The **second section** will discuss the capabilities of air and space forces, particularly those in the USAF. Specifically, the emerging core competencies and their impact on the halting phase, as well as their application to the operational concepts in Joint Vision 2010 (JV 2010). The **third section** will recommend some tools the theater CINCs can use to effectively implement air and space power into their operational plan, to include the role of the joint force air component commander (JFACC) and the five air campaign planning stages. Finally, the **last section** will address three limitations of aerospace power: inability to win on its own, MOOTW, and problems associated with land based air forces basing rights.

## US Views on Warfare

Historically, the US has pursued a strategy of attrition and annihilation that relied on a large number of forces employing mass, concentration, and lethal firepower to defeat the enemy. This was

evident in Grant's defeat of Lee's forces in the American Civil War; on the fields of France in World War I (WW); in America's emphasis on an early invasion of northwest Europe and the island invasions in the Pacific during WW II; in the US war plans for countering Soviet forces during the Cold War; and even in the early US Central Command plans to defeat Iraq in the summer of 1990.[5]

Wars have traditionally been fought in three phases: halt the invading force, build up combat power and weaken the enemy, then conduct the decisive counteroffensive. Rapid reaction or in-place forces halt the initial attack and try to trade space to buy time for a build-up of ground forces and counterattack. The end state is a product of the counterattack. The three phases, while necessary to achieve victory, are treated sequentially with equal urgency.[6]

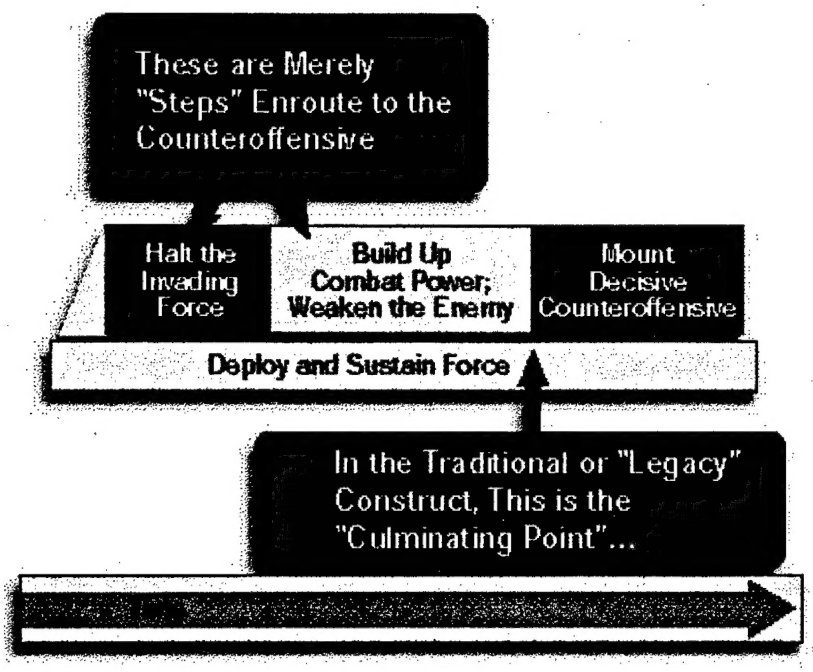


**Figure 1: The Traditional View of Conflict**[7]

In the past, US military planners have had little choice but to rely on this approach. One only needs to look back to the US air raids on Schweinfurt, Germany, in WW II to see the limitations of air power. Two raids of 300 B-17 bombers could not achieve with 3,000 bombs what two F-117s can now do with four bombs.[8] Fortunately, dramatic improvements in precision weapons have opened the

door to change. Another important factor for adjusting our approach to warfare is the nature of the enemy and the way he chooses to fight. The US might face an adversary who attempts to negate American advantages by using asymmetric means such as chemical and biological weapons, information attacks, terrorism, urban warfare, or anti-access strategies at ports and airfields. Consequently, America must quickly seize the initiative. Any delay in quickly halting the enemy may force a costly campaign.[9] Therefore, a new approach is appropriate.

**Decisive Halt**

America needs to change from a concept of force-on-force conflicts to a concept that emphasizes our sophisticated military capabilities to achieve US objectives by using what General Ronald Fogleman, former USAF Chief of Staff, called asymmetric force. This kind of force tries to compel the enemy to do our will through careful planning, rapid deployment, and precise employment of lethal force to achieve surprise. "Asymmetric force seeks to compel an adversary to do our will at least cost to the US in lives and resources."[10]

According to the Air Force Basic Doctrine Document, in this new view of asymmetric warfare, the halt phase may be planned as the conflict's decisive phase instead of as a precursor to a build-up of ground troops. The goal of the **decisive halt** is to force the enemy beyond his culminating point through the **early and sustained application of air and space power**. As the decisive halt phase unfolds, the NCA and JFC will continue to assess the situation. As the options of the enemy decrease over time, US options or "branches and sequels" increase. Strategic or operational objectives may have been achieved in the halt, follow-on diplomacy may end the conflict, or a limited air and ground counteroffensive buildup may be required.[11]

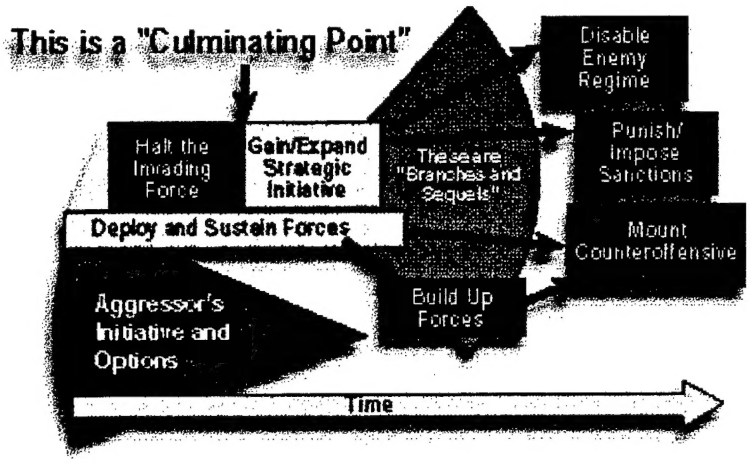


**Figure 2: Decisive Halt Approach to Warfare**[12]

Even though in some circles it's fashionable to downplay the role of air power in the Gulf War, Desert Storm is one example of how effective aerospace power can be in decisively halting an enemy in large scale warfare.

## The Gulf War

General Schwarzkopf understood much of Iraq's strength lay in its massive ground and armor forces dug in across Kuwait. He chose to capitalize on the coalition's air power advantage. The 43-day air "operation" blinded Iraq, attrited its forces in the field, devastated its command and control capabilities, closed down its bridges and supply routes, and put the world's sixth largest air force out of business for the duration of the war.[13] Overall, the Desert Storm air operation prevented a bloody slugfest on the ground and allowed coalition land forces to safely prepare for an offensive against a badly degraded enemy. When the Iraqi Army did launch an ill-fated three division assault into Saudi Arabia in late January 1991, it was primarily stopped by coalition air power. Lt General Charles Horner, the coalition air component commander in Desert Storm recalled:

> By the time the three divisions and 40,000 Iraqi troops crossed the Saudi border and started the battle of Khafji, they had been so devastated that they were defeated by 5,000 Marine Corps and Saudi National Guard troops. Because it demonstrated what air power can do to an attacking armor force in a halt scenario, I believe Khafji was the most important land battle of Desert Storm.[14]

In just four days, the coalition ground forces rolled over what was left of the world's fourth largest army. Consequently, US losses were infinitesimal compared to the 20,000 casualties many predicted before hostilities started. No doubt, air power's performance during Desert Storm set quite a precedent, but theater CINCs need to know the Gulf War standard is seven years old. Today, aerospace forces meet a higher standard and are more lethal than in 1991. Emerging capabilities and core competencies should ensure the successful implementation of a new American way of war.

## Capabilities of the USAF

### Core Competencies and Impact

Although all US military forces have offensive capabilities, the USAF's ability to mass and maneuver, while simultaneously operating at the tactical, operational, and strategic levels of warfare, provide JFCs with an exceptional resource.[15] Each service is vital to our national security and all service air arms operate in some degree to attain strategic, operational, and tactical-level objectives. However, unlike the other services, the **USAF's sole reason for being** is to provide the nation's air and space power by "organizing, training, equipping, and providing forces for the conduct of prompt and sustained combat operations in the air."[16] At the heart of aerospace power's strategic contribution to the US total military capabilities, are the USAF's core competencies of air and space superiority, precision engagement, information superiority, global attack, and rapid global maneuver.

**Air and space superiority** is an important first step in any military combat operation and will be absolutely crucial to the decisive halt strategy. It provides freedom to attack and freedom from attack. Success in any air, land, and sea operation depends upon this tenant. Since 1953, not one American soldier has been attacked by an enemy aircraft. Many have accepted the idea that air superiority is an American "God given" right, but nothing could be further from the truth.[17] One of the major reasons we've had air superiority since 1953 is the fact that the Air Force is deeply committed to this principle.

For example, with continued improvements in its air-to air missile capabilities, radar and avionics platform, and identification "friend or foe" interrogator, the aging F-15 Eagle remains the premier air superiority aircraft in the world. Another key program ensuring the US maintains this edge is the procurement of the super-cruise, stealth F-22 aircraft. In General Fogleman's opinion, "the F-22 is one of only two revolutionary weapon systems in development today."[18]

In addition, the USAF is working on the space-based infrared system to provide theater CINCs a missile warning capability with precision location and rapid transmission capabilities suitable to support theater missile defense. Along these lines, the USAF is also testing an airborne laser as a means of addressing the theater ballistic missile issue. This platform should have the ability to rapidly deploy to a conflict with other air assets and then help defend US and coalition forces by intercepting ballistic missiles in their boost phase, out to hundreds of kilometers.[19]

Increasingly, air and space power provides the "scalpel" of joint service operations through the use of **precision engagement.** This competency will allow the US to forgo the force-on-force tactics of previous wars and apply discriminate force precisely where required in the decisive halt phase. Again, the USAF is clearly not the only service capable of precision engagement, but it is the service with the greatest capability to apply this technology anywhere in the world.[20] Since Desert Storm, few competencies have received as much attention in the USAF as this one. Less than 100 USAF aircraft were capable of dropping PGMs in the Gulf War (F-117, F-111, F-15E). Of the 85,000 tons of bombs used in the war only 8,000 tons were PGMs, yet they accounted for nearly 75% of the damage. By contrast, today the USAF has over 450 PGM capable aircraft despite a huge reduction in the total number of airframes in the inventory.[21]

One example of this improved competency is the F-16. During the Gulf War, the F-16 flew the most combat missions of any coalition aircraft, but wasn't PGM equipped. Today, all Block 40 F-16s are

PGM equipped (over half the fleet) and have aptly demonstrated this capability during "Operation Deliberate Force" in Bosnia. Another example is the B-1 bomber. During the Gulf War, the B-1 was not used because it lacked a conventional capability. Today, this all-weather bomber, equipped with terrain following radar, can deliver up to 30 new anti-cluster munitions called CBU-97s. Inside each CBU-97 are 40 anti-armor bomblets. Each bomblet has its own self contained sensor, used for attacking enemy armor formations. Finally, the recent addition of the B-2 "Stealth" bomber substantially increases America's precision engagement capability. With its global positioning system-aided targeting system, the B-2 can fly 72 consecutive hours and strike 16 targets on a single sortie with the all-weather Joint Direct Attack Munitions (JDAM). Operations in the Gulf War were often delayed by bad weather, but JDAM uses satellite navigation for guidance and negates the effect of bad weather.[22] Other aircraft such as the F-15E, F-16 and A-10 will also be capable of dropping this inexpensive $14,000 bomb unit. The development of all-weather PGMs, combined with highly skilled pilots wearing night vision goggles, has significantly increased the USAF's ability to decisively halt the enemy in a large scale conflict.

Another key competency is **information superiority**. The ability to collect, control, exploit, and defend information while denying an adversary the ability to do the same will be a crucial asset to any JFC. Presently, the USAF is the major user of sophisticated air and space-based intelligence, surveillance, and reconnaissance systems. Emerging tools of information warfare will allow commanders to deny, destroy, corrupt, and manipulate an adversary's command and control. One proven asset that will ensure the US continues to dominate the information spectrum is the joint surveillance, tracking, and reconnaissance system (J-STARS) aircraft. First used with "awesome success" in the Gulf War, J-STARS is a long range airborne sensor system for standoff, wide area surveillance to locate moving and stationary ground targets. It provides ground component commanders

with a "bird's eye" view of the battlefield and the enemy's intentions. Other valued assets are unmanned aerial vehicles (UAVs). In the near term, their highest payoff applications will be in the intelligence, surveillance, reconnaissance, and communications fields. Eventually, the AF expects UAVs to conduct suppression of enemy air defense missions.[23]

All US military services provide strike capabilities, but the ability of the USAF to rapidly **attack** anywhere on the **globe** is particularly conducive to the decisive halt strategy. A decline in force structure and worldwide bases has decreased the size of our forward presence and forced the military to become primarily an expeditionary force. The USAF, with its fleet of multi-role bombers and attack aircraft supported by a large air refueling fleet, is well suited for **global attack** operations. Theater CINCs can count on USAF assets to be the first, and potentially most decisive, force in countering aggression in their area of responsibility. At present, CONUS based USAF bomber assets can get PGMs on target anywhere in the world within 72 hours.[24] Also, the USAF continues to refine the Air Expeditionary Force concept demonstrated in Oct 1995 when an array of combat fighter aircraft were dispatched to Bahrain on very short notice to cover an extended gap in carrier presence.[25] The ability to fly long intercontinental distances, and attack with lethal precision, is a cornerstone to decisively halting an invading force threatening key American interests.

Tied closely to the success of global attack is **rapid global mobility**. The USAF is committed to providing theater CINCs with the timely movement, positioning, and sustainment of US military forces to any spot on the globe. No doubt, sea lift forces provide tremendous mobility and lift capacity and are crucial to any sustained military operations. However, the particular competence of the USAF to rapidly transit global distances to theaters where minimum forces are forward deployed is absolutely critical to the halt phase.[26] In conjunction with the upgraded C-141 and C-5 transport aircraft, the recently procured C-17 has helped address one of America's most pressing military shortfalls, strategic

lift. The C-17 has already demonstrated in real crises the ability to take C-5 and C-141 loads into short takeoff and landing C-130 type airfields. The ability to deliver ground troops and surface equipment to theater CINCs go a long way towards achieving strategic objectives. The combination of these competencies are well suited to the decisive halt concept and the next century's joint vision of warfighting.

**Application to JV 2010**

JV 2010 set forth several overarching operational concepts applicable to air power and the decisive halt approach. The three concepts I'll discuss are dominant maneuver, precision engagement, and full-dimensional protection. USAF aerospace core competencies produce unique contributions to these JV 2010 concepts and the ultimate goal of full spectrum dominance. For example, the operational capability of air power to project lethal combat fires anywhere in the world supports **dominant maneuver**.[27] The ability to rapidly deploy, globally attack, and gain air superiority places the enemy under constant threat of attack from aerospace power.

Same goes for JV 2010's concept of **precision engagement.** Undoubtedly, the US employs the most accurate and lethal aerial PGMs in the world, but precision is not just limited to weapons. It may mean the precise air delivery of material or troops to a forward location on short notice. Accurate weaponry, maneuver, and delivery will combine to make JV 2010 precision engagement a critical element in the decisive halt strategy and joint force employment.

Finally, air and space power provides significant **full dimensional protection** for our joint forces. As mentioned, air and space superiority is crucial to ensuring freedom of action. The protection of joint forces from airplane and ballistic missile attack is fundamental. Also, the global attack flexibility of the USAF provides the JFC a means to quickly counter unexpected actions by the enemy, particularly during an invasion. Bottom line, USAF core competencies are right in line with JV 2010

and provide theater CINCs with suitable options to protect and defend US national interests. The next step is the proper implementation of aerospace power.

## Implementation of Air and Space Forces at the Operational Level

### The JFACC

Joint publication 1-02 describes a campaign plan as the blueprint for a series of related military operations aimed to accomplish a common objective, normally within a given time and space.[28] An operational level campaign plan is an outline of broad concepts to achieve the objectives. It must articulate the CINC's vision and intent. Also, it must concentrate on the enemy centers of gravity (COGs) and relay how the campaign should flow. To insure this happens, a very important member of the CINC's staff is the **JFACC.** In a nutshell, the JFACC is the single air commander responsible for integrating the employment of all aerospace forces. Under most circumstances, this is a USAF General officer. Among all the subordinate war fighters, he must have a theater-wide and campaign-long view. Some have described his job as having "to fight the entire width, depth, and height of the theater." He's involved from the first deployment into theater all the way until the last GI goes home. The advice the JFACC gives the CINC must include how air power can best support surface warfare, as well as articulating how surface forces can optimize the effectiveness of air attacks. This advice will be embodied in what is called the air campaign plan.[29]

### Air Campaign Plan

Developing the **air campaign plan** is a five-stage process: 1) researching the combat environment, 2) determining the air objectives, 3) determining the air strategy, 4) analyzing COGs, and 5) putting the campaign together. The process doesn't require that one stage be complete before the another begins.[30] In stage one, **the combat environment** is crucial. It entails knowing yourself, the enemy, and the theater in which you may be called to fight. For example, the JFACC needs to assess the environment,

possible aerial targets, enemy air capabilities, and enemy anti-air capabilities. Consistent with the basic principles of war, the most important part of the air campaign planning is stage two, **determining the objectives**. The objectives must focus on what the CINC wants to achieve. The JFACC must ensure the air objectives are clear, applicable, attainable, and measurable.

The next stage for the JFACC is to **determine the air strategy**. No clear distinction exists between objectives and strategy. I'll define strategy as "the way you want to achieve the objectives."[31] The motivation for determining strategy is the same as the one for determining air objectives, the JFACC must know the CINC's intent. The best air strategy is one that attacks the enemy's plan, applies our strengths to his weaknesses, and protects our weaknesses from his strengths.[32]

Stage four **analyzes the enemy and friendly COGs**. Three considerations are important in this type of analysis. First, the JFACC must not assume the enemy thinks like we do. Next, the JFACC should recommend enemy COGs according to the effect their destruction might have on the will of the enemy. Then, the JFACC must advice the JFC on the capabilities of aerospace forces to effectively target enemy COGs. A useful tool for analysis is the concept of five concentric rings, introduced by Colonel John Warden, USAF. By looking at leadership, key production, infrastructure, population, and fielded military forces the CINC can focus on appropriate enemy COGs.[33] Finally, the JFACC must prepared to commit the necessary aerospace assets to protect friendly COGs.

After completing the first four steps, the JFACC can finalize and **put together an air campaign plan** that meets the CINC's approval. This is more than building a master attack plan or integrated tasking order. The air campaign plan must identify the right targets, assign priorities, and specify the level and type of damage desired. Then the air campaign plan must identify the required weapons systems, the right sequence of employment, and the proper apportionment and allocation of these systems.[34] With the experience of a highly qualified JFACC and sound air campaign planning

process, CINCs can determine the best way to decisively halt the enemy, but not before they're fully aware of aerospace limitations.

## Aerospace Power Limitations in the New Approach

The **first restraint** is aerospace forces cannot complete the decisive halt strategy on their own. Depending upon the theater, the objectives, and the enemy disposition, aerospace power may be the single most important part of the campaign, but there will still be a requirement for ground forces to defeat the remaining enemy forces. Postulated scenarios such as North Korea invading the Republic of Korea or Iraq or Iran invading Saudi Arabia are examples of where I think the new strategy could decisively halt the invading force early in the conflict and then allow ground forces to rapidly secure the victory.[35] Aerospace power, and its future usefulness, has been examined in great detail in the 1990s and rhetoric has flown back and forth. Army supporters who see their favored image of warfare threatened by air proponents who claimed "air power can do it alone" have responded with comments like "the Gulf War air operation was nothing more than a side show to the main event" and the USAF "is intent on fighting its own private wars."[36] Both of these views are misguided. For the record, the last three USAF Chief of Staffs didn't claimed air power won the Gulf War single-handedly, or that air power can do it alone. Rather, they all expressed views that aerospace power will be decisive in some but not all conflicts. Also, aerospace power can often create conditions for victory by making the endgame relatively painless for other force components.[37] I agree.

While aerospace power can be decisive in large scale overt acts of aggression against a conventional industrialized enemy, it may have a **limited role in theaters conducting MOOTW.** Usually, non-industrialized belligerent societies engaged in civil wars, guerrilla warfare, or insurgency operations don't have the infrastructure suitable for aerial attack. Often, finding specific targets which impact the "real enemy" may be difficult. Also, the nature of the conflict may have ethnic groups distributed so

haphazardly that it becomes difficult to discern a discrete territorial unit inhabited by specific nationalities or ethnic groups.[38] Finally, in the case of civil war or counter-insurgency operations, properly trained "foot soldiers carrying rucksacks" might be far more effective at winning the hearts and minds of the populace than flashy displays of air power.

Despite MOOTW limitations, aerospace power can still provide options to the JFC during these contingencies. For example, the 1989 "Operation Just Cause" in Panama was a success because US Army ground forces did a superb job; however, aerospace forces contributed as a supporting instrument by getting the troops there, re-supplying them, and hauling them out. Also, during "Operation Deliberate Force" air strikes in Aug and Sep 1995, F-16 PGM equipped fighter pilots deprived the Serbs of vital warfighting resources while minimizing collateral damage. Former Secretary of Defense William Perry highlighted this when he said "Deliberate Force air strike missions were crucial in bringing the warring parties to the table at Dayton leading to the peace agreement."[39] While the main focus in Bosnia has been ground peacekeeping for the last 30 months, aerospace assets have continued to enforce no fly zone sanctions, perform airlift support, conduct surgical strikes against weapons caches and critical installations, J-STARS, UAV, and other intelligence and reconnaissance support.

The **last limitation** I'll mention is the issue of theater basing rights for land based air forces. Although long range air and naval assets do not require basing within a specific theater, most USAF air assets can perform much higher sortie rates if based at forward operating locations. Recent diplomatic problems between America and Saudi Arabia, over possible US air strike missions flown from Saudi Arabia into Iraq, highlighted this limitation. Fortunately, basing rights have historically been very easy to obtain when clear acts of aggression have occurred, especially if the host nation is threatened with invasion. Certainly, Saudi Arabia did not hesitate to let US land based air forces operate out of the Kingdom when Iraqi troops where lined up on Saudi borders in 1990-1991. Nonetheless, this limitation

is one reason the US must continue to maintain a capable carrier-based air component. Also, it's critical that US basing issues be proactively addressed during normal military and diplomatic contacts to minimize this issue during times of conflict.[40]

## Recommendations and Conclusion

There are two specific recommendations for warfighting CINCs and JFCs. First, it's important for their planning staffs to remain up to date on the emerging competencies of aerospace forces. While these forces aren't a panacea, they have become increasingly more lethal since the Gulf War, where they were still very dominant! Next, is the requirement for CINCs to articulate their requirements for air and space forces in their theater campaign plans as soon as possible. Both of these recommendations can be accomplished by open and joint interaction with the JFACC and expert Air Force members on his staff. Having personally experienced the development of five sub-unified command integrated tasking orders, I'm very familiar with the problems that can arise if this dialog doesn't happen. Such interaction will greatly help the JFC effectively use aerospace forces to meet the specific requirements for the various contingencies in his area of operations.

With this in mind, the improved technological and operational improvements by US air and space forces will make significant and multidimensional contributions to Joint Vision 2010 full-spectrum dominance plans. In large scale conflicts, the decisive halt strategy's use of early and sustained aerospace power, when combined with close JFACC consultation and a sound air campaign plan, can allow the JFC to re-prioritize the emphasis from the counter attack phase to the initial halt phase. More importantly, this will enable the JFC to seize the initiative from the enemy without employing extensive ground forces. Ultimately, the price we save is in terms of American and allied lives.

## Endnotes

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